

# Beyond the Superhighway Exploiting HTML in Various Instructional Contexts

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*The only successful way to predict the future is to invent it. - Alan Kay*

The general purpose nature of Hypertext Markup Language (HTML) makes it the medium of choice for instructional experimentation. Even though HTML is often considered synonymous with the World Wide Web (WWW), our experience shows that the Web is not sufficient to support many teaching situations. Our institution has embarked on a multi-year program to bring HTML-based materials into settings where the traditional, client/server WWW model is unavailable, irrelevant, or impractical.

## CLASSROOM INSTRUCTION

The WWW can be an effective classroom tool. Instructors may wish to link to certain "live" Internet resources as they lecture. However, specialized software is preferred by most faculty who develop computer-generated presentations. These materials do not lend themselves to use outside of the classroom and require extensive rework for delivery via the WWW. To overcome these limitations, we use a simplified markup scheme called MTX to generate HTML presentations.<sup>1</sup> By adjusting the Web browser's display characteristics the instructor is able to achieve results similar to many commercial packages. The real advantage comes when these same "slides" are made available to students via the WWW with little or no modification.<sup>2</sup> This eliminates a tremendous amount of redundant effort by both faculty and students.

## PAPER SYLLABI

Paper will remain an important medium in medical education well into the next century. While some authors have studied electronic alternatives to paper,<sup>3</sup> our goal has been to make the WWW synergistic with traditional paper materials. To do this, we create Web pages that are optimized for printing using the MTX markup. Various "Web-centric" features such as page outlines, navigation buttons, and automatic page counters are suppressed before each page is printed. The results are functionally and esthetically equivalent to syllabi produced with a word processor.

## CD-ROM SYLLABI

Many of our students own or have access to computers where they live. They study at home using the WWW over slow and often unreliable modem connections. We have begun to experiment with CD-ROM syllabi produced directly from our various Web resources. We feel this approach will be essential as more and more students go "on-line" and crowd the already overburdened campus modem banks. Our HTML documents are designed to be context independent. We can move them "en bloc" from one location to another (including CD-ROM) without breaking the overall hypertext structure.

## PERSONAL DIGITAL ASSISTANTS

Finally, the newest and most exotic use we have found for HTML is to produce transportable hypertext references and patient management tools for the Apple Newton MessagePad. A program called "Newt's Cape"<sup>4</sup> allows us to distill selected Web pages into interactive Newton Books. These documents can contain hypertext, graphics, tables, and form elements. Document structure and interactivity is maintained. Information captured by students at the bedside or on rounds is automatically saved to the Newton note pad for later use.

## References

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